CURRENT STATUS OF ALL CLAIMS

Claims 1 to 45. Cancelled.

7 ~~46.~~ (Currently amended) The method of claim **[[3]]** 6 ~~54~~, wherein said G-protein coupled signal is increased intracellular calcium ion concentration.

8 ~~47.~~ (Currently amended) The method of claim **[[3]]** 6 ~~54~~, wherein **said receptor is contacted with 2 or more different candidate compounds** ~~said one or more candidate compounds comprises 100 or more different candidate compounds~~.

9 ~~48.~~ (Currently amended) The method of claim **[[3]]** 6 ~~54~~, wherein said candidate compound contacts said ADP-glucose receptor polypeptide in the presence of ADP-glucose.

13 ~~49.~~ (Currently amended) The method of claim **[[9]]** 12 ~~57~~, wherein **said receptor is contacted with 2 or more different candidate compounds** ~~said one or more candidate compounds comprises 100 or more different candidate compounds~~.

14 ~~50.~~ (Currently amended) The method of claim **[[9]]** 12 ~~57~~, wherein said candidate compound contacts said ADP-glucose receptor polypeptide in the presence of ADP-glucose.

2 ~~51.~~ (Currently amended) The method of claim **[[14]]** 1 ~~60~~, wherein said G-protein coupled signal is increased intracellular calcium ion concentration.

~~52~~ 3. (Currently amended) The method of claim **[[14]]** ~~60~~ 1, wherein **said receptor is contacted with 2 or more different candidate compounds** ~~**said one or more candidate compounds comprises 100 or more different candidate compounds**~~.

~~53~~ 18. (Currently amended) The method of claim **[[19]]** ~~63~~ 17, wherein **said receptor is contacted with 2 or more different candidate compounds** ~~**said or more candidate compounds comprises 100 or more different candidate compounds**~~.

~~54~~ 6. (New) A method of identifying an ADP-glucose receptor agonist, comprising:

(a) contacting an ADP-glucose receptor polypeptide with at least one candidate compound under conditions that permit said receptor to produce a G-protein coupled signal in response to ADP-glucose, wherein said ADP-glucose receptor polypeptide has the amino acid sequence designated SEQ ID NO:2; and

(b) determining the ability of said candidate compound to increase production of said G-protein coupled signal, wherein a candidate compound that increases production of said signal is thereby identified as an ADP-glucose receptor agonist.

~~55~~ 10. (New) The method of claim ~~54~~ 6, wherein said receptor is contacted with a library of candidate compounds.

11 ~~56~~. (New) The method of claim ~~54~~ 6, wherein said receptor is contacted with 100 or more different compounds separately.

12 ~~57~~. (New) A method of identifying an ADP-glucose receptor ligand, comprising:

(a) contacting an ADP-glucose receptor polypeptide with at least one candidate compound under conditions that permit said receptor to selectively bind ADP-glucose, wherein said ADP-glucose receptor polypeptide has the amino acid sequence designated SEQ ID NO:2; and

(b) determining the ability of said candidate compound to bind said ADP glucose receptor, wherein a candidate compound that selectively binds said ADP-glucose receptor is thereby identified as an ADP-glucose receptor ligand.

15 ~~58~~. (New) The method of claim ~~57~~ 12, wherein said receptor is contacted with a library of candidate compounds.

16 ~~59~~. (New) The method of claim ~~57~~ 12, wherein said receptor is contacted with 100 or more different compounds separately.

1 ~~60~~. (New) A method of identifying an ADP-glucose receptor agonist or antagonist, comprising:

(a) contacting an ADP-glucose receptor polypeptide with at least one candidate compound in the presence of ADP-glucose under conditions wherein said receptor produces a G-protein coupled signal in response to ADP-glucose, wherein said ADP-glucose receptor polypeptide has the amino acid sequence designated SEQ ID NO:2;

(b) determining the ability of said candidate compound to alter production of said G-protein coupled signal, wherein a candidate compound that alters production of said signal is identified as an ADP-glucose receptor agonist or antagonist.

4 ~~61~~. (New) The method of claim 1 ~~60~~, wherein said receptor is contacted with a library of candidate compounds.

5 ~~62~~. (New) The method of claim 1 ~~60~~, wherein said receptor is contacted with 100 or more different compounds separately.

17 ~~63~~. (New) A method of identifying an ADP-glucose receptor ligand, comprising:

(a) contacting an ADP-glucose receptor polypeptide with at least one candidate compound in the presence of ADP-glucose under conditions that permit said receptor to selectively bind ADP-glucose, wherein said ADP-glucose receptor polypeptide has the amino acid sequence designated SEQ ID NO:2; and

(b) determining the ability of said candidate compound to bind said ADP-glucose receptor, wherein a candidate compound that selectively binds said ADP-glucose receptor is thereby identified as an ADP-glucose receptor ligand.

19 ~~64~~. (New) The method of claim ~~63~~ 17, wherein said receptor is contacted with a library of candidate compounds.

20 ~~65~~. (New) The method of claim ~~63~~ 17, wherein said receptor is contacted with 100 or more different compounds separately.